

**IN THE ABSTRACT**

Please insert the following abstract into the application:

The invention relates to a plate heat exchanger for exchanging heat between a first air stream (11, 12) and a second air stream (13, 14) comprising a plurality of plates (1) limiting exchange chambers which are serially arranged in a transversal direction with respect to said plates (1). The first air stream passes through one part of the exchange chambers (11, 12), the second air stream passes through the other exchange chambers (13, 14), preferably in an opposite direction. The second air stream consists of the air (13) removed from ventilated premises. A water distribution system (20, 21) is used for supplying water to the exchange chambers of the second air stream (13, 14) in such a way that the removed air is cooled by contact and evaporation, thereby lowering the external air temperature.